02280.003720 PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant	: EDWARD L. RAPP ET AL.	Art Unit: 1761
Serial No.	: 10/615,249	Examiner: Helen F. Pratt
Filed	: July 8, 2003	
Title	: TASTING ENERGY BAR (As Amended)	June 18, 2007

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Commissioner for Patents
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Supplemental Appeal Brief to Correct Deficiency

This is a paper in response to the Notification of Non-Compliant Appeal Brief dated May 17, 2007. In accordance to MPEP § 1205.03, please replace the appeal brief filed on April 5, 2007 with the following complete appeal brief, which was amended only to correct the deficiencies in the (i) Status of the Claims and (ii) Summary of Claimed Subject Matter sections as indicated in the Notification of Non-Compliant Appeal Brief. Although no fees should be required for this paper, any necessary fees may be charged from Deposit Account 06-1205

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BRIEF ON APPEAL

I. Real Party in Interest

The real party in interest is the assignee, Mars, Incorporated.

II. Related Appeals and Interferences

There are no related appeals or interferences.

III. Status of Claims

Claims 1-4, 6-8, and 10-24 stand finally rejected and are under appeal. Claims 5 and 9 are cancelled.

IV. Status of Amendments

The claims have not been amended subsequent to the final rejection.

V. Summary of Claimed Subject Matter

Applicants' claimed invention is directed to energy bars that taste superior to other similarly categorized energy bars. (Page 6, lines 5-16). The invention is also directed to methods of making the energy bars of the invention. (Page 6, lines 17-29).

For the purposes of the invention, energy bars are food products that are shelf stable, in a portable form, and based on a 55 g serving size provide about 15 to about 45 g of carbohydrates, about 1 to about 4.5 g of fortification components (e.g., vitamins, minerals, antioxidants, amino acids, herb supplements, polyphenols, etc.), about 8 to about 40 g of protein, about 3 to about 8 g of fat, and about 150 to about 300

calories, and have a moisture content of less than about 15% by weight. (Page 4, line 29 to Page 5, line 4).

Prior to the claimed invention, energy bars were unappealing; the homogeneity of the extruded mass created bars lacking in desirable food-like properties. (Page 2, lines 17-24). Additionally, the haphazard combination of bad tasting but desirably nutritious ingredients (e.g., protein, vitamins, minerals, etc.) with other ingredients resulted in mediocre tasting products. (*Id.*). Furthermore, the inclusion of protein powders produced a mouth drying sensation. (Page 2, line 25 to Page 3, line 3).

The present invention overcomes these unappealing characteristics of energy bars without compromising on the healthful nutritional benefits of such bars by incorporating one or more of the following techniques: (1) processing process sensitive ingredients in a manner to preserve the integrity of the process sensitive ingredients by controlling the temperature and/or shear energy imparted on the process sensitive ingredients, (2) strategically positioning physiologically functional ingredients in the energy bar, (3) including a fat-carbohydrate matrix with the energy bar matrix, and (4) using protein powders having a particle size distribution such that at least 30 wt. % of the protein powder has a mean particle size of at least about 35 microns. (Page 6, lines 17-29). An ordinarily skilled artisan using such techniques set forth in the present specification may make energy bars (e.g., grain based or chewy energy bars) that have a hedonic score for consumer acceptability of at least about 4.9 based on a 7-point "acceptability scale," where a score of 1 is equivalent to a rating of "Dislike Extremely," and 7 is equivalent to a rating of "Like Extremely". (Page 5, lines 15-22; Page 10, line 19 to Page 11, line 7).

In the embodiment of the invention recited in appealed claim 1, the energy bar has a mean hedonic score for consumer acceptability of at least about 5.2, about 15 to about 45 g of carbohydrates, about 1 to about 4.5 g of fortification components, about 8 to about 40 g of protein, about 3 to about 8 g of fat, about 150 to about 300 calories, and a moisture content of less than about 15% by weight, based on a 55 gram serving size. (Page 4, line 29 to Page 5, line 4). The carbohydrates are selected from the group consisting of starch, sugar, gels, syrups, honey, molasses, and combinations thereof. (Page 14, lines 3-5). The fortification components are selected from the group consisting of vitamins, minerals, and combinations thereof. (Page 17, lines 15-17). The protein is selected from the group consisting of whey protein, milk protein, egg protein, casein, peanut flour, nut meats, vegetable protein, and combinations thereof. (Page 21, lines 15-19). The fat is selected from the group consisting of chocolate, peanut butter, fat substitutes, vegetable fats, tropical fats, animal fats, and combinations thereof. (Page 14, lines 1-3).

In the embodiment of the invention recited in appealed claim 3, the grain based energy bar has a mean hedonic score for consumer acceptability of at least about 5.2, about 15 to about 45 g of carbohydrates, about 1 to about 4.5 g of fortification components, about 8 to about 40 g of protein, about 3 to about 8 g of fat, about 150 to about 300 calories, and a moisture content of less than about 15% by weight, based on a 55 gram serving size. (Page 4, line 29 to Page 5, line 4; Page 10, lines 7-19; Page 11, lines 5-7). The carbohydrates are selected from the group consisting of starch, sugar, gels, syrups, honey, molasses, and combinations thereof. (Page 14, lines 3-5). The fortification components are selected from the group consisting of vitamins, minerals,

and combinations thereof. (Page 17, lines 15-17). The protein is selected from the group consisting of whey protein, milk protein, egg protein, casein, peanut flour, nut meats, vegetable protein, and combinations thereof. (Page 21, lines 15-19). The fat is selected from the group consisting of chocolate, peanut butter, fat substitutes, vegetable fats, tropical fats, animal fats, and combinations thereof. (Page 14, lines 1-3).

In the embodiment of the invention recited in appealed claim 7, the chewy based energy bar has a mean hedonic score for consumer acceptability of at least about 4.9, about 15 to about 45 g of carbohydrates, about 1 to about 4.5 g of fortification components, about 8 to about 40 g of protein, about 3 to about 8 g of fat, about 150 to about 300 calories, and a moisture content of less than about 15% by weight, based on a 55 gram serving size. (Page 4, line 29 to Page 5, line 4; Page 10, lines 7-19; Page 11, lines 1-4). The carbohydrates are selected from the group consisting of starch, sugar, gels, syrups, honey, molasses, and combinations thereof. (Page 14, lines 3-5). The fortification components are selected from the group consisting of vitamins, minerals, and combinations thereof. (Page 17, lines 15-17). The protein is selected from the group consisting of whey protein, milk protein, egg protein, casein, peanut flour, nut meats, vegetable protein, and combinations thereof. (Page 21, lines 15-19). The fat is selected from the group consisting of chocolate, peanut butter, fat substitutes, vegetable fats, tropical fats, animal fats, and combinations thereof. (Page 14, lines 1-3).

In the embodiment of the invention recited in appealed claim 14, the energy bar is made by a process comprising the steps of (a) mixing one or more solid components and one or more carbohydrate based syrups to form an energy bar matrix; (b) mixing the energy bar matrix with a fat-carbohydrate matrix to form an enhanced

energy bar matrix, wherein the fat-carbohydrate matrix is comprised of one or more fats and one or more carbohydrate components, and (c) forming the enhanced energy bar matrix into the energy bar, wherein the energy bar has a lubricious mouthfeel. (Page 4, lines 3-9; Page 29, lines 13-19). The energy bar must have about 15 to about 45 g of carbohydrates, about 1 to about 4.5 g of fortification components, about 8 to about 40 g of protein, about 3 to about 8 g of fat, about 150 to about 300 calories, and a moisture content of less than about 15% by weight, based on a 55 g serving size. (Page 4, line 29 to Page 5, line 4). The carbohydrates are selected from the group consisting of starch, sugar, gels, syrups, honey, molasses, and combinations thereof, the fortification components are selected from the group consisting of vitamins, minerals, and combinations thereof, the protein is selected from the group consisting of whey protein, milk protein, egg protein, casein, peanut flour, nut meats, vegetable protein, and combinations thereof, and the fat is selected from the group consisting of chocolate, peanut butter, fat substitutes, vegetable fats, tropical fats, animal fats and combinations thereof. (Page 14, lines 1-4; Page 17, lines 15-17; Page 21, lines 15-19).

The embodiment of the invention recited in appealed claim 16 is a method of making an energy bar comprising the steps of (a) mixing one or more solid components and one or more carbohydrate based syrups to form an energy bar matrix; (b) mixing the energy bar matrix with a fat-carbohydrate matrix to form an enhanced energy bar matrix, wherein the fat-carbohydrate matrix is comprised of one or more fats and one or more carbohydrate components, and (c) forming the enhanced energy bar matrix into the energy bar, wherein the energy bar has a lubricious mouthfeel. (Page 4, lines 10-16; Page 29, lines 13-19). The resulting energy bar must have about 15 to about

45 g of carbohydrates, about 1 to about 4.5 g of fortification components, about 8 to about 40 g of protein, about 3 to about 8 g of fat, about 150 to about 300 calories, and a moisture content of less than about 15% by weight, based on a 55 g serving size. (Page 4, line 29 to Page 5, line 4). The carbohydrates are selected from the group consisting of starch, sugar, gels, syrups, honey, molasses, and combinations thereof, the fortification components are selected from the group consisting of vitamins, minerals, and combinations thereof, the protein is selected from the group consisting of whey protein, milk protein, egg protein, casein, peanut flour, nut meats, vegetable protein, and combinations thereof, and the fat is selected from the group consisting of chocolate, peanut butter, fat substitutes, vegetable fats, tropical fats, animal fats and combinations thereof. (Page 14, lines 1-4; Page 17, lines 15-17; Page 21, lines 15-19).

The embodiment of the invention recited in appealed claim 18 is a method for improving the mean hedonic score of an energy bar, comprising one or more of the following steps: (a) processing process sensitive ingredients in a manner to preserve the integrity of said process sensitive ingredients by controlling the temperature and/or shear energy imparted on said process sensitive ingredients; (b) including a fat-carbohydrate matrix with an energy bar matrix; and (c) using protein powders that have a particle size distribution such that at least about 30 wt.% of said protein powder has a mean particle size of at least about 35 microns. (Page 4, lines 17-25; Page 6, lines 17-29). Again, the energy bar must have about 15 to about 45 g of carbohydrates, about 1 to about 4.5 g of fortification components, about 8 to about 40 g of protein, about 3 to about 8 g of fat, about 150 to about 300 calories, and a moisture content of less than about 15% by weight, based on a 55 g serving size. (Page 4, line 29 to Page 5, line 4). In addition, the

carbohydrates are selected from the group consisting of starch, sugar, gels, syrups, honey, molasses, and combinations thereof, the fortification components are selected from the group consisting of vitamins, minerals, and combinations thereof, the protein is selected from the group consisting of whey protein, milk protein, egg protein, casein, peanut flour, nut meats, vegetable protein, and combinations thereof, and the fat is selected from the group consisting of chocolate, peanut butter, fat substitutes, vegetable fats, tropical fats, animal fats and combinations thereof. (Page 14, lines 1-4; Page 17, lines 15-17; Page 21, lines 15-19).

The energy bar recited in claim 21 has a mean hedonic score for consumer acceptability of at least about 5.2, wherein said energy bar has about 15 to about 45 g of carbohydrates, about 1 to about 4.5 g of fortification components, about 8 to about 40 g of protein, about 3 to about 8 g of fat, about 150 to about 300 calories, and a moisture content of less than about 15% by weight, based on a 55 g serving size. (Page 4, line 29 to Page 5, line 4; Page 10, lines 19-20). In addition, the energy bar is comprised of an energy bar matrix combined with a fat-carbohydrate matrix in a weight ratio of about 99:1 to about 80:20. (Page 13, line 20; Page 14, lines 14-18). The energy bar matrix is comprised of a solid component selected from the group consisting of corn starch, oat, rice, wheat, barley, cereal, grains, sorghum, protein, salt, flavors, cocoa powder, flour, fortification components, sugars, and combinations thereof, and a carbohydrate based syrup selected from the group consisting of corn syrups, liquid sucrose, honey, high fructose corn syrup, glycerin, and combinations thereof. (Page 12, line 23 to Page 13, line 8). The fat-carbohydrate matrix is comprised of about 2 wt.% to about 25 wt.% of one or more fat components selected from the group consisting of chocolate, peanut

butter, fat substitutes, vegetable fats, tropical fats, animal fats and combinations thereof, and about 10 wt. % to about 75 wt. % of one or more carbohydrate components selected from the group consisting of starch, sugar, gels, syrups, honey, molasses, and combinations thereof. (Page 13, line 20 to Page 14, line 13). Further, the carbohydrates are selected from the group consisting of starch, sugar, gels, syrups, honey, molasses, and combinations thereof, the fortification components are selected from the group consisting of vitamins, minerals, and combinations thereof, the protein is selected from the group consisting of whey protein, milk protein, egg protein, casein, peanut flour, nut meats, vegetable protein, and combinations thereof, and the fat is selected from the group consisting of chocolate, peanut butter, fat substitutes, vegetable fats, tropical fats, animal fats and combinations thereof. (Page 14, lines 1-5; Page 17, lines 15-17; Page 21, lines 15-19).

The energy bar recited in claim 22 has a mean hedonic score for consumer acceptability of at least about 5.2, about 15 to about 45 g of carbohydrates, about 1 to about 4.5 g of fortification components, about 8 to about 40 g of protein, about 3 to about 8 g of fat, about 150 to about 300 calories, and a moisture content of less than about 15% by weight, based on a 55 g serving size. (Page 4, line 29 to Page 5, line 4; Page 6, lines 12-16; Page 10, lines 19-26). Significantly, the protein is comprised of protein powder and at least 30 wt. % of the protein powder has a mean particle size of at least about 35 microns. (Page 21, lines 24-30). Again, the carbohydrates are selected from the group consisting of starch, sugar, gels, syrups, honey, molasses, and combinations thereof, the fortification components are selected from the group consisting of vitamins, minerals, and combinations thereof, the protein is selected from the group consisting of whey

protein, milk protein, egg protein, casein, peanut flour, nut meats, vegetable protein, and combinations thereof, and the fat is selected from the group consisting of chocolate, peanut butter, fat substitutes, vegetable fats, tropical fats, animal fats and combinations thereof. (Page 14, lines 1-4; Page 17, lines 15-17; Page 21, lines 15-19).

Furthermore, as recited in claim 23, the protein powder is selected from the group consisting of animal protein, plant protein, whey protein, soy protein, milk protein, egg protein, casein, peanut flour, nut meats, and combinations thereof. (Page 21, lines 15-19). As recited in claim 24, the protein powder has a particle size distribution such that at least 50% of the particles have a mean particle diameter in the range from about 35 to about 175 microns and less than 10% of the particles have a mean particle diameter in the range from about 10 to about 50 microns. (Page 21, line 24 to Page 22, line 27).

VI. Grounds of Rejection To Be Reviewed On Appeal

1. Whether claims 14-17 are anticipated under 35 U.S.C. §102 by Rombauer?

2. Whether claims 1-4, 6-8, 10-13, and 18-22 are obvious under 35 U.S.C. §103 over U.S. Patent No. 4,055,669 (Kelly) in view of U.S. Patent No. 6,592,915 (Froseth) and Joy of Cooking, page 708 (Rombauer)?

3. Whether claims 23 and 24 are obvious under 35 U.S.C. §103 over Kelly in view of Froseth, Rombauer, and U.S. Patent No. 3,615,590 (Avera)?

4. Whether claims 1-4, 6-8, and 10-13, and 18-24 are not obvious in view of objective indicia?

VII. Argument

Claims 14-17 are rejected as allegedly anticipated under 35 U.S.C. § 102 by prior art. Anticipation of a claim occurs only if each and every element as set forth in the claim is found, either expressly or inherently, described in a single prior art reference. *Structural Rubber Prods. v. Park Rubber Co.*, 749 F.2d 707, 715 (Fed. Cir. 1984). Here, the Examiner failed to demonstrate each and every element of the rejected claims in a single prior art reference.

Claims 1-4, 6-8, 10-13, and 18-24 are rejected as allegedly obvious under 35 U.S.C. § 103 over the prior art. The test for obviousness under § 103 "rests on several critical factual underpinnings: (1) the scope and content of the prior art, (2) the differences between the prior art and the claimed invention, (3) the level of skill in the art, and (4) the objective indicia of nonobviousness." *Yamanouchi Pharm. Co. v. Danbury Pharmacal*, 231 F.3d 1339, 1343 (Fed. Cir. 2000) (citing *Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561, 1566-67 (Fed. Cir. 1987) and *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966)). Here, the Examiner not only made erroneous factual determinations related to the scope and content of the prior art and the differences between the prior art and the claimed invention, but also inappropriately dismissed clear indicia of nonobviousness.

A. Claims 14-17 Are Not Anticipated by Rombauer.

Claims 14-17 are not anticipated because each and every limitation of the claims is not described by Rombauer, either inherently or expressly. *Structural Rubber Prods. v. Park Rubber Co.*, 749 F.2d 707, 715 (Fed. Cir. 1984). Independent claim 14 is a product by process claim and independent claim 16 is a method claim; both are directed

toward energy bars having about 15 to about 45 g of carbohydrates, about 1 to about 4.5 g of fortification components, about 8 to about 40 g of protein, about 3 to about 8 g of fat, about 150 to about 300 calories, and a moisture content of less than about 15% by weight, based on a 55 g serving size. Rombauer teaches a concoction (Pfeffernusse) comprising flour, baking powder, baking soda, salt, black pepper, nutmeg, cloves, cinnamon, anise or cardamom seeds, butter or shortening, sugar, egg, almonds, citron, orange peel, molasses, corn syrup, brandy, and lemon juices and rinds. (p. 708, Columns 1-2). Clearly, Rombauer does not teach the addition of any fortification component, e.g., vitamins or minerals, as claimed in claims 14-17. Also, the described Pfeffernusse of Rombauer contains only 4.6 g protein, over 40% below the minimum of 8 g necessary to be considered an energy bar as claimed. (First Declaration of Edward Rapp Dated May 8, 2006 "Rapp Declaration I", ¶¶ 12-14, 17). Consequently, claims 14-17 are clearly not anticipated by Rombauer.

B. Claims 1-4, 6-8, 10-13, and 18-22
Are Not Obvious over Kelly in View of Froseth And Rombauer.

To make a prima facie case of obviousness the Examiner must show that: (1) there was some suggestion or motivation to combine references, (2) there was a reasonable expectation of success, and (3) the references when combined teach or suggest all the claim limitations. *See In re Rouffet*, 149 F.3d 1350, 1355(Fed. Cir. 1998) (holding improper a rejection based on obviousness absent any motivation to combine the prior art); *In re Rinehart*, 531 F.2d 1048, 1053-54 (C.C.P.A. 1976) (reversing a rejection of the claims as obvious because there was no reasonable expectation that a process combining prior art processes could be successfully scaled up in view of unchallenged evidence showing that the prior art processes could not be individually and successfully scaled up);

see generally In re Vaeck, 947 F.2d 488, 493 (Fed. Cir. 1991) (reversing an obviousness rejection because the prior art did not disclose or suggest each claim limitation of the invention or convey a reasonable expectation of success). The teaching or suggestion to make the claimed combination must be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d at 493. Here the prior art neither provided a motivation to combine the references to result in the claimed invention nor taught or suggested all the claim limitations of claims 1-4, 6-8, 10-13, and 18-22, either individually or combined. Thus, the obviousness rejections are based on impermissible hindsight, using the claimed invention as a blue print to piece together the prior art into the claimed invention. *Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 1138 (Fed. Cir. 1985) (stating "[t]he invention must be viewed not with the blueprint drawn by the inventor, but in the state of the art that existed at the time.").

1. There Is No Motivation or Suggestion
To Combine Kelly, Froseth and Rombauer

As explained below, there are significant differences between the claimed invention and the food products described in Kelly, Froseth, and Rombauer. Consequently, there is nothing in Kelly, Froseth, and Rombauer that would provide motivation to one of ordinary skill in the art to combine these references to recreate the claimed invention.

The appealed claims are directed to energy bars having highly desirable taste characteristics and processes for manufacturing such energy bars. Significantly, the energy bars of this invention have been defined by claim specified nutritional parameters. As noted in the First and Second Declarations of Edward Rapp dated May 8, 2006, ("Rapp Declaration I" and "Rapp Declaration II", respectively), food products that meet

this definition of energy bars have always been difficult to formulate without compromising taste. (Rapp Declaration I, ¶¶ 6-8; Rapp Declaration II, ¶¶ 6-9). Kelly, Froseth and Rombauer do not describe the manufacture of an energy bar, and thus, were not faced with the problem solved by the present inventors. (*see, e.g.*, Rapp Declaration I, ¶¶ 10, 11-14). That which does not recognize the problem cannot render the solution to that problem obvious. *In re Clay*, 966 F.2d 656, 659-60 (Fed Cir. 1992) (reversing a finding of obviousness because the prior art did not deal with the problem the claimed invention solved).

a. Kelly, Froseth and Rombauer Are Not Analogous Art.

Kelly, Froseth, and Rombauer should not be used as prior art references because none are directed toward either energy bars or to solving the problem of making energy bars taste good. To rely on a reference under § 103, the reference must either be in the field of the applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the invention was concerned. *In re Oetiker*, 977 F.2d 1443, 1447 (Fed. Cir. 1992). The present invention is directed to good tasting energy bars having significant levels of nutrients (such as protein and fortification components) but low levels of fat and calories. (*See, e.g.*, Page 2, line 28 to Page 3, line 25). The present invention is also directed to methods of making such energy bars that do not include adding the high amounts of fat typically used to mask the bland taste and mouth drying sensation produced by high levels of protein. (*Id.*). Kelly is directed toward breakfast bars comprising a binder that includes a protein source coated with an edible fat (which masks the protein flavor and makes the binder taste bland), wherein the binder may comprise fortification components (e.g., vitamins and minerals), and is subject to

high shear (Column 2, lines 24-27, 33-39; Column 3, lines 6-14; Column 4, lines 11-42; Column 5, lines 40-42), Froseth is directed to a cereal bar having at least two cereal layers and at least one visible filling layer, wherein the cereal layers further comprise a binder to hold identifiable ready to eat cereal pieces together (Column 1, lines 54-57; Column 2, lines 3-7), and Rombauer is directed to Pfeffernusse balls (p.708, Column 1). Since each does not have the nutritional values required to be considered an energy bar (Rapp Declaration I, ¶¶ 8-14), they are not in the field of energy bars. Additionally, because Kelly teaches the use of fat to overcome the negative taste and mouthfeel that results from high levels of protein and fortification components, it is not reasonably pertinent to making high protein energy bars taste good without adding excess fat.

As described in the specification of the present invention, energy bars are a food category designed to provide significant levels of nutrients, such as protein and fortification components, in a low fat and low calorie bar. (Page 2, lines 2-5). Prior to the invention, energy bars were the product of haphazard addition of protein and fortification components. (Page 2, lines 9-24). Additionally, the restrictive compositional limits of an energy bar precluded the addition of high amounts of fat, which otherwise could have been used to mask of the negative taste of protein and fortification components. (Rapp Declaration I; ¶ 18). Such haphazardness and the inability to use fat to mask the bland taste and mouth drying sensation produced by protein resulted in energy bars that were less than appealing, as evidenced by the low hedonic scores received by top products in the energy bar market prior to the present invention. (Page 2, lines 9 to Page 10, line 18; Page 9 line 31 to Page 10, line 4). The present invention solved these problems, and thus, an energy bar of or made by the

methods of the present invention must taste good despite having significant amounts of protein and fortification components, e.g., vitamins and/or minerals, and despite having low levels of fat and/or calories. (Page 10, line 19 to Page 11, line 7; Page 12, lines 2-22). Significantly, each of the claims recites an energy bar having about 15 to about 45 g of carbohydrates, about 1 to about 4.5 g of fortification components, about 8 to about 40 g of protein, about 3 to about 8 g of fat, about 150 to about 300 calories, and a moisture content of less than about 15% by weight, based on a 55 g serving size. (*Amendment dated May 8, 2006*, pp. 2-10).

In contrast, Kelly, Froseth, and Rombauer are not directed toward energy bars. (Rapp Declaration I, ¶¶ 8, 10-14). Both Kelly and Froseth are directed toward cereal bars, and Rombauer provides a recipe for Pfeffernusse. (*Kelly*, Column 2, lines 24-27, 33-39; *Froseth*, Column 1, lines 54-57, Column 2, lines 3-7; *Rombauer*, p.708, Column 1). The compositions of Kelly have a minimum of 11 g of fat, which exceeds the amount of 3 to about 8 g of fat as set forth in the present claims. (Rapp Declaration I, ¶ 10). Froseth contains only 0.66 g of fortification components, which is below the required range of about 1 to about 4.5 g as set forth in the present claims. (Rapp Declaration I, ¶ 11). Rombauer does not contain any fortification components and lacks significant protein. (Rapp Declaration I, ¶¶ 12-13). In fact, Rombauer is so far removed from the energy bar category that its citation by the Examiner is clear evidence that the Examiner has failed to recognize the significance of the presently claimed energy bar category and the extraordinary hurdles that needed to be overcome to provide an excellent tasting energy bar. Thus, Kelly, Froseth, and Rombauer are not in the field of energy bars.

Kelly also does not teach how to overcome the negative taste and mouthfeel produced by high levels of protein and fortification components without using high amounts of fat. In fact, Kelly stresses the importance of using fat in its fat occluded binder composition, "[T]he individual particles of protein and carbohydrate contained in the binder composition are substantially coated with fat. The fat component . . . masks the otherwise adverse effect of the protein flavor." (Column 3, lines 6-15 (emphasis added)). Consequently, Kelly is not analogous art also because it does not solve the problem posed by the compositional requirements of an energy bar, which preclude the typical use of high amounts of fat and carbohydrates to mask the negative taste of protein.

Thus, it is respectfully submitted that Kelly, Froseth, and Rombauer cannot be construed to be in the field of energy bars or reasonably pertinent to the creation of good tasting energy bars.

b. The Examiner Did Not Give Proper Weight to Mr. Rapp's Declarations

Evidence that Kelly, Froseth, and Rombauer were not directed towards energy bars or improving the taste of energy bars was submitted in the form of a declaration by Mr. Rapp, (Rapp Declaration I), and the Examiner erred by ignoring Mr. Rapp's testimony. Rebuttal evidence may be presented by way of a declaration under 37 C.F.R. 1.132 and, when presented, requires the Examiner to start the obviousness analysis anew giving consideration to the rebuttal evidence along with the facts on which the earlier conclusion of obviousness was reached. *In re Piasecki*, 745 F.2d 1468, 1474 (Fed. Cir. 1984) (reversing the decision of the Board of Patent Appeals and Interferences to sustain the Examiner's rejection on grounds of obviousness because rebuttal evidence, e.g., in the form of affidavits by experts, was weighted against the conclusion of

obviousness rather than against the facts against which the conclusion was made). Mr. Rapp's testimony demonstrated that the amounts of fat in the food products of Kelly are above the limits of an energy bar as claimed (Rapp Declaration I, ¶¶ 8, 10, 14), that the cereal bar disclosed by Froseth does not contain the amount of a fortification component required for an energy bar as claimed (Rapp Declaration I, ¶¶ 8, 11, 14, 16), and that the Pfeffernusse disclosed in Rombauer does not have the required protein and fortification component levels required for an energy bar as claimed (Rapp Declaration I ¶¶ 8, 12-14, 17). Additionally, since Mr. Rapp's testimony was based on real calculations, that each of Kelly, Froseth, and Rombauer is not directed toward an energy bar is a matter of fact. (Rapp's Declaration I, ¶¶ 10-13). Thus, the Examiner erroneously dismissed such declarations. *In re Rinehart*, 531 F.2d at 1052 (stating "[f]acts established by rebuttal evidence must be evaluated.").

c. Kelly and Froseth Teach Away from the Claims

Not only are Kelly, Froseth, and Rombauer not analogous to the art of energy bars, but Kelly and Froseth actually teach away from the present invention. A prior art reference must be considered in its entirety, including portions that would lead away from the claimed invention. *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1550, 1553 (Fed. Cir. 1983) (reversing holdings of invalidity based on obviousness because the district court erred by disregarding disclosures in the references that diverge and teach away from the claimed invention and also by declining to consider objective evidence of nonobviousness).

The claimed invention is directed toward energy bars having superior taste and methods of preparing those energy bars having superior taste. (*see, e.g.*, Page 6, lines

12-29). The method of the invention recited in claim 18 comprises one or more of the following steps: (a) processing process sensitive ingredients (e.g., a fortification component) in a manner to preserve the integrity of said process sensitive ingredients by controlling the temperature and/or shear energy imparted on said process sensitive ingredients; (b) including a fat-carbohydrate matrix with an energy bar matrix; and (c) using protein powders that have a particle size distribution such that at least about 30 wt.% of said protein powder has a mean particle size of at least about 35 microns. (*Amendment dated May 8, 2006*, pp. 7-8). The specification teaches that either or both shear and temperature may deleteriously affect process sensitive components. (Page 17, lines 4-11; Page 18, lines 4-10). By way of guidance, the specification provides that the shearing action should be sufficient to mix the process sensitive component into the homogeneous base matrix without deleteriously affecting the process sensitive component, e.g., by operating an agitator at a low speed. (Page 18, line 4 to Page 19, line 7). In stark contrast, Kelly, Froseth, and Rombauer do not teach or suggest the techniques set forth in (a), (b), and/or (c) when considered individually or in combination. That is because these references were not faced with the problem of providing an energy bar having significant amounts of protein and fortification components with low fat that actually tastes good.

Kelly also teaches away from the present invention. First, Kelly provides no guidance as to the effects of shear and temperature on fortification components, e.g., vitamins and minerals. Second, the specification of Kelly discloses processing the fat-occluded binder and then mixing the binder with cereal to produce the final breakfast bar food product. (Column 5, lines 53-58). Kelly consistently distinguishes its binder

composition from its food products (*see, e.g.*, Abstract; Column 2, lines 24-27, 33-35, 43-48, 62-68), specifically teaches that its binder composition may include vitamins and minerals (Column 5, lines 40-42), and suggests that the binder composition be subject to an "agitator operated at high speed" during processing. (Column 4, lines 11-42). Thus considered as a whole, Kelly actually teaches away from the claimed invention.

Froseth similarly teaches away from the present invention. Froseth discloses a layered cereal bar having at least two cereal layers and at least one visible filling layer, wherein the cereal layers further comprise a binder to hold identifiable ready to eat cereal pieces together. (Column 1, lines 54-57; Column 2, lines 3-7). While Froseth notes that certain vitamins are heat sensitive and could be added to the binder last, it also teaches that macronutrients (e.g., vitamins and minerals) can be added in the process of making its disclosed binder at any time and that the binder may be mixed with a high-speed mixer. (Column 14, lines 61-64; Column 15, line 62 to Column 16, line 4).[1]

Since neither Kelly nor Froseth disclose the effect of high shear on fortification components, and in fact, encourage subjecting fortification components to high shear processes, both teach away from the present invention. Thus, there would be no motivation to combine Kelly, Froseth, and Rombauer to use the methods of the invention to recreate the claimed energy bars.

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[1] It is noted that Froseth also indicates that certain vitamins are heat sensitive and could be added to the binder last. (Column 14, lines 61-64; Column 15, line 65 to column 16, line 4). Applicants recognize that "the prior art's disclosure of more than one alternative does not constitute a teaching away from any of these alternatives." *In re Fulton*, 391 F.3d 1195 (Fed. Cir. 2004). However, teaching the addition of heat sensitive vitamins to the binder last still does not teach the present invention because it does not teach that shear may also affect the process sensitive component, and thus, encourages adding a fortification component to a binder mixed with a high-speed mixer.

2. Kelly, Froseth and Rombauer When Combined Do Not Teach or Suggest All the Claim Limitations of Claims 1-4, 6-8, 10-13, and 18-22

As discussed above, there is no motivation to combine Kelly, Froseth, and Rombauer. However, even if there were such motivation, Kelly, Froseth, and Rombauer, whether taken alone, or in any permissible combination, do not disclose or suggest the features of an energy bar of the invention, i.e., a good tasting energy bar having about 15 to about 45 g of carbohydrates, about 1 to about 4.5 g of fortification components, about 8 to about 40 g of protein, about 3 to about 8 g of fat, about 150 to about 300 calories, and a moisture content of less than about 15% by weight, based on a 55 g serving size. Further, claim 22 includes the above limitations that define an energy bar, and also provides that the protein is comprised of protein powder and at least 30 wt. % of the protein powder has a mean particle size of at least about 35 microns.

It is moot to argue whether the food products of Kelly, Froseth, and Rombauer taste good because the products of these references are not energy bars. Simply adding the fortification component(s) and/or protein to remedy the deficiencies of the food products described in these references would not result in a good tasting and appealing energy bar. (Rapp Declaration I, ¶¶8-15). That would only occur using the teaching of the present invention, which is clearly inappropriate. *Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 1139 (Fed. Cir. 1985). Other energy bar products that do have the nutritional requirements of an energy bar of the invention, but that do not taste good, provide evidence that Kelly, Froseth, and Rombauer cannot simply be combined to remedy the deficiencies of each other. For example, POWERBAR® and LUNA®, which are energy bars as defined by the present invention and were the top selling products in the energy bar market for the past 20 years, have respective hedonic scores of only 4.78

and 5.06. (*Specification*, Page 9, line 27 to Page 10, line 18; Rapp Declaration I, ¶15). This is because the negative taste of the protein and fortification ingredients in food products is typically masked by higher amounts of fats, which is not possible within the restrictive compositional limits of energy bars. (Rapp Declaration I, ¶18). Additionally, small changes or deviations in the weight of even just one component are of significant consequence in terms of percent composition. (Rapp's Declaration I, ¶ 19).

Further, none of Kelly, Froseth, or Rombauer teach or suggest using a protein powder having the particle size distribution of claim 22, wherein at least 30 wt. % of the protein powder has a mean particle size of at least about 35 microns. The inventors of the present invention discovered that engineering the mean particle diameter of a protein powder achieves exceptional and surprising properties, e.g., improved mouthfeel and lubricity, leading to an improved hedonic score. (Page 21, lines 25-30; Page 22, lines 28-29). Applicants respectfully asserted that Kelly, Froseth, and Rombauer not only fail to describe an energy bar as defined by claimed nutritional limitations, but also fail to disclose either using a protein powder with the particle size distribution set forth in claim 22 and/or the benefits of using such a protein powder. (*See, e.g., Amendment dated May 8, 2006*, p. 16; Rapp Declaration II, ¶¶ 22-26).

The Examiner had alleged that in Kelly "[t]he protein powder is sodium caseinate which has been rolled with other ingredients to the size of 50 microns. The protein powders would have had to have been about the claimed caseinate size of at least 35 microns since all the ingredients are 50 microns." (*Office Action dated May 24, 2005*, p. 3 (citing *Kelly*, Column 6, lines 29-60)). Applicants pointed out that the Examiner's allegation required the unproven assumption that the sodium caseinate (protein powder)

had an average particle size greater than 35 microns prior to combining it with the sugar, nonfat milk solids, and fat to form a crude mixture. (*Preliminary Amendment dated November 22, 2005*, pp. 13-14). The Applicants also pointed out that Kelly does not disclose the particle size of the sodium caseinate, and thus, processing the crude mixture (i.e., the mixture comprising the sodium caseinate, sugar, nonfat mild solids, and fat) to the size of 50 microns does not ensure that the sodium caseinate would have an average particle size of 50 microns. (*Id.*, p. 14). Applicants further provided an example whereby the sodium caseinate may have had an initial average particle size less than 30 microns before being combined with other ingredients to form the crude mixture, and that after the rolling step, would still have had an average particle size of less than 30 microns. (*Id.* p. 14). Therefore, it is respectfully submitted that Kelly does not teach or suggest including a protein powder, where at least 30 wt. % of the protein powder has a mean particle size of at least about 35 microns

Furthermore, the Examiner erred in alleging that the burden is on the Applicants to show that the particle size of protein in Kelly is not within the claimed size range, and in alleging that the protein powder in Kelly had an average particle size of 50 microns. (*Office Action dated June 8, 2006*, p. 9). To rely on an alleged characteristic in making a rejection based on anticipation or obviousness, it is the Examiner's burden to provide a basis in fact and/or technical reasoning to support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art. *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990). Additionally, Federal Circuit has stated,

> To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the

> thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient. *In re Robertson*, 169 F.3d 743, 45 (Fed. Cir. 1999); *see also In re Rijckaert*, 9 F.3d 1531, 1534 (Fed. Cir. 1993) (reversing rejection because inherency was based on what would result due to optimization of conditions, not what was necessarily present in the prior art).

The Examiner's allegation that the protein powder in Kelly had an average particle size of 50 microns was in error because it was not based on fact or technical reasoning, nor necessarily present in Kelly, nor so recognizable by an ordinarily skilled artisan. In fact, the Applicants respectfully provided an example whereby the protein powder could be less than 35 microns, and pointed out that Kelly provides no means of determining the particle size distribution of the protein disclosed therein (*Preliminary Amendment dated November 22, 2005*, pp. 13-14). The Examiner also erred since the invention is based, in part, on the exceptional and surprising properties achieved by engineering the mean particle diameter of a protein power (*Specification*, p. 21, lines 24-30). *In re Soni*, 54 F.3d 750, 751 (Fed. Cir. 1995) (holding that the Board of Patent Appeals and Interferences erred in maintaining the Examiner's rejection of the claims as obvious because unexpected results is established when Applicant demonstrates substantially improved results, states that the results were unexpected, and there is no evidence to the contrary)). As such, claim 22 is patentable over Kelly, Froseth, and Rombauer, whether taken alone or in any permissible combination.

Consequently, even if the cited references could be combined in a manner to create a bar that satisfies the nutritional requirements of an energy bar, a skilled artisan would not know how to combine the references to create a good tasting energy bar

without the teaching of the present specification. As described in the specification, the present invention is directed toward energy bars with superior hedonic scores, and provides such energy bars using the processing techniques described in the specification and claimed herein, e.g., claim 18. As discussed above, Kelly, Froseth, and Rombauer do not disclose nor suggest such techniques. Thus, it is respectfully submitted that any combination of these references to meet the claimed nutritional requirements of an energy bar would not have resulted in the claimed good tasting energy bars or the claimed methods to obtain the good tasting energy bars. Accordingly, the claims of the present invention would not have been considered obvious in view of the cited art.

C. Claims 23 and 24 Are Not Obvious
Over Kelly in View of Froseth, Rombauer and Avera.

As described above, there is no motivation to combine Kelly, Froseth, and Rombauer to recreate the present invention. Additionally, even if these references were combined, any such permissible combination would not result in the energy bars of the invention. Furthermore, Avera does not overcome the deficiencies of Kelly, Froseth, and Rombauer.

Claims 23 and 24 are each dependent from claim 22, which is directed to an energy bar having about 15 to about 45 g of carbohydrates, about 1 to about 4.5 g of fortification components, about 8 to about 40 g of protein, about 3 to about 8 g of fat, about 150 to about 300 calories, and a moisture content of less than about 15% by weight, based on a 55 g serving size, wherein the protein is comprised of protein powder, of which at least 30 wt. % has a mean particle size of at least 35 microns. Avera (like Kelly, Froseth, and Rombauer) is not directed toward an energy bar, but rather a high fat melt nut butter and a process for making the nut butter. (Column 1, lines 3-4). Also, Avera

teaches that its final product, i.e., the nut butter and not any protein powder that is used to create an energy bar, may pass through a 200 mesh screen size (alleged by the Examiner to be 75 microns). (*Avera*, Column 6, lines 40-44). Consequently, Avera is not analogous to the present invention, and there would be no motivation or suggestion to combine Avera with even one of Kelly, Froseth, and Rombauer.

Further, combination of Avera with Kelly, Froseth, and/or Rombauer would not teach or suggest all the claim limitations of claims 23 and 24. The Examiner concludes that claims 23 and 24 would have been obvious because Avera discloses "that protein is known in the claimed amounts." (*Office Action dated December 7, 2005*, p. 8). Applicants are not arguing that they are first to discover a source of protein powder (claim 23) or a particle size range of protein powder (claim 24), but instead claim its use in an energy bar. The Examiner clearly erred by taking the protein in Avera and placing it as a protein powder in an energy bar, particularly since Avera is directed to a nut butter, e.g., peanut butter (*Avera*, Column 1, lines 19-43), and peanut butter is defined in the present application as a fat component and not a protein powder. (*See, e.g., Specification*, Page 14, lines 1-3). Further, Avera's disclosed process of making nut butter involves grinding raw nuts to form a slurry, roasting the slurry by heating, and then cooling the slurry. (Column 1, lines 59-65). Avera does not disclose adding protein powder.

Avera is not directed toward an energy bar, and does not overcome the deficiencies of Kelly, Froseth, and Rombauer. Consequently, claims 23 and 24 are not obvious over Kelly, Froseth, Rombauer, and Avera.

D. Claims 1-4, 6-8, 10-13, and 18-24
Are Not Obvious in Light of Objective Indicia.

The Examiner also erred because she repeatedly refused to give proper weight to objective evidence of secondary considerations such as unexpected results, commercial success, long felt need, failure of others, etc. in her analysis of obviousness. When evidence of any of these secondary considerations is submitted, the Examiner must evaluate the evidence, and the ultimate determination on patentability is made on the entire record. *In re Oetiker*, 977 F.2d 1443, 1445. Thus, even if a prima facie case were deemed to have been established, it is respectfully submitted that the secondary considerations of the claimed invention's satisfaction of a long felt need and commercial success would overcome any such prima facie case.

The energy bar market has grown, and has long felt the need for products that satisfy consumers' desires for a nutritious bar that tastes good. (Rapp Declaration I, ¶ 6; Rapp Declaration II, ¶¶ 6-9). The claimed invention satisfies such need by carefully combining ingredients and incorporating one or more of the following processing steps: (a) mixing the fortification component with the homogeneous base energy food matrix in a manner to preserve the integrity of the fortification components by controlling the temperature and/or shear energy imparted on the fortification components; (b) including a fat-carbohydrate matrix with an energy bar matrix; and (c) using protein powders that have a particle size distribution such that at least about 30 wt.% of the protein powder has a mean particle size of at least about 35 microns. The result is an energy bar with a taste, texture, and appearance that satisfies consumers' needs. (Rapp Declaration II, ¶¶ 10-11)

Objective evidence that the present invention satisfies long felt needs, and enjoys commercial success was demonstrated. First, the invention's satisfaction of long

felt needs is evidenced by the number of awards won by one embodiment of the Applicants' invention, sold under the brand name SNICKERS MARATHON®. (Evidence Appendix A; Rapp's Declaration II ¶15). Second, the apparent commercial success of SNICKERS MARATHON® is evidenced by its sales velocity, which has exceeded expectations. (Evidence Appendix B; Rapp's Declaration II ¶ 13). Further, according to Mr. Rapp, the commercial success of the invention is not simply due to marketing (Rapp's Declaration II, ¶14).

Objective evidence that the present invention is not obvious over the prior art, e.g. awards demonstrating that the present invention satisfied long felt needs and sales velocity demonstrating commercial success, was presented. Further, the Examiner erred by not considering the objective evidence. Thus, it is respectfully submitted that claims 1-4, 6-8, 10-13 and 18-24 are not obvious over the art of record, particularly in light of the objective indicia of non-obviousness presented.

It is respectfully submitted that the new amended appeal brief corrects the deficiencies of the appeal brief filed April 5, 2007.

Respectfully submitted,

Date: June 18, 2007

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FCHS_WS 1422720_1.DOC

VIII. Claims Appendix

1. An energy bar having a mean hedonic score for consumer acceptability of at least about 5.2, wherein said energy bar has about 15 to about 45 g of carbohydrates, about 1 to about 4.5 g of fortification components, about 8 to about 40 g of protein, about 3 to about 8 g of fat, about 150 to about 300 calories, and a moisture content of less than about 15% by weight, based on a 55 g serving size, wherein said carbohydrates are selected from the group consisting of starch, sugar, gels, syrups, honey, molasses, and combinations thereof, said fortification components are selected from the group consisting of vitamins, minerals, and combinations thereof, said protein is selected from the group consisting of whey protein, milk protein, egg protein, casein, peanut flour, nut meats, vegetable protein, and combinations thereof, and said fat is selected from the group consisting of chocolate, peanut butter, fat substitutes, vegetable fats, tropical fats, animal fats and combinations thereof.

2. The energy bar of claim 1, at a 60 % confidence level.

3. A grain based energy bar having a mean hedonic score for consumer acceptability of at least about 5.2, wherein said energy bar has about 15 to about 45 g of carbohydrates, about 1 to about 4.5 g of fortification components, about 8 to about 40 g of protein, about 3 to about 8 g of fat, about 150 to about 300 calories, and a moisture content of less than about 15% by weight, based on a 55 g serving size, and

wherein said carbohydrates are selected from the group consisting of starch, sugar, gels, syrups, honey, molasses, and combinations thereof, said fortification components are selected from the group consisting of vitamins, minerals, and combinations thereof, said protein is selected from the group consisting of whey protein, milk protein, egg protein, casein, peanut flour, nut meats, vegetable protein, and combinations thereof, and said fat is selected from the group consisting of chocolate, peanut butter, fat substitutes, vegetable fats, tropical fats, animal fats and combinations thereof.

4. The energy bar of claim 3, wherein said energy bar has process sensitive ingredients that are processed in a manner to preserve the integrity of said process sensitive ingredients by controlling the temperature and shear energy imparted on said process sensitive ingredients.

6. The energy bar of claim 3, wherein said energy bar includes protein powder that has a particle size distribution such that at least about 30 wt.% of said protein powder has a mean particle size of at least about 35 microns.

7. A chewy energy bar having a mean hedonic score for consumer acceptability of at least about 4.9, wherein said energy bar has about 15 to about 45 g of carbohydrates, about 1 to about 4.5 g of fortification components, about 8 to about 40 g of protein, about 3 to about 8 g of fat, about 150 to about 300 calories, and a moisture content of less than about 15% by weight, based on a 55 g serving size, and

wherein said carbohydrates are selected from the group consisting of starch, sugar, gels, syrups, honey, molasses, and combinations thereof, said fortification components are selected from the group consisting of vitamins, minerals, and combinations thereof, said protein is selected from the group consisting of whey protein, milk protein, egg protein, casein, peanut flour, nut meats, vegetable protein, and combinations thereof, and said fat is selected from the group consisting of chocolate, peanut butter, fat substitutes, vegetable fats, tropical fats, animal fats and combinations thereof.

8. The energy bar of claim 7, wherein said energy bar has process sensitive ingredients that are processed in a manner to preserve the integrity of said process sensitive ingredients by controlling the temperature and shear energy imparted on said process sensitive ingredients.

10. The energy bar of claim 7, wherein said energy bar has protein powder that has a particle size distribution such that at least about 30 wt.% of said protein powder has a mean particle size of at least about 35 microns.

11. The energy bar of claim 7, wherein said energy bar has a fat-carbohydrate matrix that is gently folded into an energy bar matrix, wherein said energy bar matrix is comprised of one or more solid components, and one or more carbohydrate based syrups.

12. The energy bar of claim 11, wherein said fat-carbohydrate matrix is selected from the group consisting of caramel, fondants, truffles, creams, ganache, mousse, chocolate, and mixtures thereof.

13. The energy bar of claim 7, wherein said energy bar has inclusions that are comprised of fortification ingredients.

14. An energy bar made by the process comprising the steps of:

(a) mixing one or more solid components and one or more carbohydrate based syrups to form an energy bar matrix;

(b) mixing said energy bar matrix with a fat-carbohydrate matrix to form an enhanced energy bar matrix, wherein said fat-carbohydrate matrix is comprised of one or more fats and one or more carbohydrate components, and

(c) forming said enhanced energy bar matrix into said energy bar, wherein said energy bar has a lubricious mouthfeel, and

wherein said energy bar has about 15 to about 45 g of carbohydrates, about 1 to about 4.5 g of fortification components, about 8 to about 40 g of protein, about 3 to about 8 g of fat, about 150 to about 300 calories, and a moisture content of less than about 15% by weight, based on a 55 g serving size, and

wherein said carbohydrates are selected from the group consisting of starch, sugar, gels, syrups, honey, molasses, and combinations thereof, said fortification components are selected from the group consisting of vitamins, minerals, and combinations thereof, said protein is selected from the group consisting of whey protein, milk protein, egg protein, casein, peanut flour, nut meats, vegetable protein, and combinations thereof, and said fat is selected from the group consisting of chocolate, peanut butter, fat substitutes, vegetable fats, tropical fats, animal fats and combinations thereof.

15. The energy bar of claim 14, wherein said energy bar has a mean hedonic score of at least about 5.2.

16. A method of making an energy bar comprising the steps of:

(a) mixing one or more solid components and one or more carbohydrate based syrups to form an energy bar matrix;

(b) mixing said energy bar matrix with a fat-carbohydrate matrix to form an enhanced energy bar matrix, wherein said fat-carbohydrate matrix is comprised of one or more fats and one or more carbohydrate components, and

(c) forming said enhanced energy bar matrix into said energy bar, wherein said energy bar has a lubricious mouthfeel, and

wherein said energy bar has about 15 to about 45 g of carbohydrates, about 1 to about 4.5 g of fortification components, about 8 to about 40 g of protein, about 3 to about 8 g of fat, about 150 to about 300 calories, and a moisture content of less than about 15% by weight, based on a 55 g serving size, and

wherein said carbohydrates are selected from the group consisting of starch, sugar, gels, syrups, honey, molasses, and combinations thereof, said fortification components are selected from the group consisting of vitamins, minerals, and combinations thereof, said protein is selected from the group consisting of whey protein, milk protein, egg protein, casein, peanut flour, nut meats, vegetable protein, and combinations thereof, and said fat is selected from the group consisting of chocolate, peanut butter, fat substitutes, vegetable fats, tropical fats, animal fats and combinations thereof.

17. The method of claim 16, wherein said energy bar has a mean hedonic score of at least about 5.2.

18. A method for improving the mean hedonic score of an energy bar, comprising one or more of the following steps: (a) processing process sensitive ingredients in a manner to preserve the integrity of said process sensitive ingredients by controlling the temperature and/or shear energy imparted on said process sensitive ingredients; (b) including a fat-carbohydrate matrix with an energy bar matrix; and (c) using protein powders that have a

particle size distribution such that at least about 30 wt.% of said protein powder has a mean particle size of at least about 35 microns,

wherein said energy bar has about 15 to about 45 g of carbohydrates, about 1 to about 4.5 g of fortification components, about 8 to about 40 g of protein, about 3 to about 8 g of fat, about 150 to about 300 calories, and a moisture content of less than about 15% by weight, based on a 55 g serving size, and

wherein said carbohydrates are selected from the group consisting of starch, sugar, gels, syrups, honey, molasses, and combinations thereof, said fortification components are selected from the group consisting of vitamins, minerals, and combinations thereof, said protein is selected from the group consisting of whey protein, milk protein, egg protein, casein, peanut flour, nut meats, vegetable protein, and combinations thereof, and said fat is selected from the group consisting of chocolate, peanut butter, fat substitutes, vegetable fats, tropical fats, animal fats and combinations thereof.

19. The method of claim 18, wherein step (a) is used to produce a hedonic gain of about 0.4 points.

20. The method of claim 18, wherein steps (a) and (b) are used to produce a hedonic gain of about 0.6 points.

21. An energy bar having a mean hedonic score for consumer acceptability of at least about 5.2, wherein said energy bar has about 15 to about 45 g of carbohydrates, about 1 to about 4.5 g of fortification components, about 8 to about 40 g of protein, about 3 to about 8 g of fat, about 150 to about 300 calories, and a moisture content of less than about 15% by weight, based on a 55 g serving size, and wherein said energy bar is comprised of an energy bar matrix combined with a fat-carbohydrate matrix in a weight ratio of about 99:1 to about 80:20, and the energy bar matrix is comprised of a solid component selected from the group consisting of corn starch, oat, rice, wheat, barley, cereal, grains, sorghum, protein, salt, flavors, cocoa powder, flour, fortification components, sugars, and combinations thereof, and a carbohydrate based syrup selected from the group consisting of corn syrups, liquid sucrose, honey, high fructose corn syrup,

glycerin, and combinations thereof, and the fat-carbohydrate matrix is comprised of about 2 wt.% to about 25 wt.% of one or more fat components selected from the group consisting of chocolate, peanut butter, fat substitutes, vegetable fats, tropical fats, animal fats and combinations thereof, and about 10 wt. % to about 75 wt. % of one or more carbohydrate components selected from the group consisting of starch, sugar, gels, syrups, honey, molasses, and combinations thereof, and

wherein said carbohydrates are selected from the group consisting of starch, sugar, gels, syrups, honey, molasses, and combinations thereof, said fortification components are selected from the group consisting of vitamins, minerals, and combinations thereof, said protein is selected from the group consisting of whey protein, milk protein, egg protein, casein, peanut flour, nut meats, vegetable protein, and combinations thereof, and said fat is selected from the group consisting of chocolate, peanut butter, fat substitutes, vegetable fats, tropical fats, animal fats and combinations thereof.

22. An energy bar having a mean hedonic score for consumer acceptability of at least about 5.2, wherein said energy bar has about 15 to about 45 g of carbohydrates, about 1 to about 4.5 g of fortification components, about 8 to about 40 g of protein, about 3 to about 8 g of fat, about 150 to about 300 calories, and a moisture content of less than about 15% by weight, based on a 55 g serving size, wherein said protein is comprised of protein powder and at least 30 wt. % of the protein powder has a mean particle size of at least about 35 microns, and

wherein said carbohydrates are selected from the group consisting of starch, sugar, gels, syrups, honey, molasses, and combinations thereof, said fortification components are selected from the group consisting of vitamins, minerals, and combinations thereof, said protein is selected from the group consisting of whey protein, milk protein, egg protein, casein, peanut flour, nut meats, vegetable protein, and combinations thereof, and said fat is selected from the group consisting of chocolate, peanut butter, fat substitutes, vegetable fats, tropical fats, animal fats and combinations thereof.

23. The energy bar of claim 22, wherein said protein powder is selected from the group consisting of animal protein, plant protein, whey protein, soy protein, milk protein, egg protein, casein, peanut flour, nut meats, and combinations thereof.

24. The energy bar of claim 22, wherein said protein powder has a particle size distribution such that at least 50% of the particles have a mean particle diameter in the range from about 35 to about 175 microns and less than 10% of the particles have a mean particle diameter in the range from about 10 to about 50 microns.

IX. Evidence Appendix

A. Letter to Bertille Glass re Best Bar Award – Filed with November 17, 2005 Preliminary Amendment.

B. 2005 Sales Velocity Top 20 – Filed with November 17, 2005 Preliminary Amendment.

C. First Declaration of Edward L. Rapp dated May 8, 2006 – Filed with May 8, 2006 Amendment in response to Non-Final Office Action.

D. Second Declaration of Edward L. Rapp dated may 8, 2006 – Filed with May 8, 2006 Amendment in response to Non-Final Office Action.

APPENDIX A

September 19, 2005

Bertille Glass
Associate Public Relations Manager
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A Division of Mars Incorporated
800 High Street
Hackettstown, NJ 07840
P: 908-850-2281
Email: bertille.glass@effem.com

Dear Bertille,

Congratulations! Your product, Snickers Marathon Energy Bar, Double Chocolate Nut, has been named Best Bar in Health's Best of Fitness awards 2006.

Our expert panel of judges, including *Health* contributor Petra Kolber and American Council on Exercise spokesperson Richard Cotton, singled out your product among over 500 entries in 6 major categories (footwear, apparel, fuel, equipment, gear, and DVD/videos). The winners will be featured in *Health*'s January/February issue (on newsstands December 29).

In addition to the story—an annual favorite among our 7.3 million readers—winners earn the right to display *Health*'s Best of Fitness seal on promotional materials, product packaging, websites, etc. (You will receive a separate communication with details on using the seal in the next several days.)

Thank you for participating in this program, which gives our readers the guidance in an area that's so crucial to their physical and emotional well-being. And, again, congratulations from all of us at *Health*.

Sincerely,

Lisa D

Lisa Delaney
Special Projects Director
Health

Health

APPENDIX B

2005 Sales Velocity Top 20

Total US FDMC

Dollar Sales

		4 Week Ending Jan 23, 2005	4 Week Ending Feb 20, 2005	4 Week Ending Mar 20, 2005	4 Week Ending Apr 17, 2005	4 Week Ending May 15, 2005	4 Week Ending Jun 12, 2005	4 Week Ending Jul 10, 2005	4 Week Ending Aug 7, 2005	4 Week Ending Sep 4, 2005	2005 Average
1	SNICKERS MARATHON MULTI GRAIN CRUNCH EN	$ 11,868	$ 13,584	$ 13,099	$ 14,103	$ 14,024	$ 13,385	$ 12,378	$ 12,722	$ 12,722	$ 13,098
2	SNICKERS MARATHON CARAMEL NUT RUSH PRO	$ 9,819	$ 10,406	$ 10,942	$ 13,652	$ 16,200	$ 12,841	$ 13,059	$ 10,929	$ 11,014	$ 12,098
3	ATKINS ADVANTAGE CHOC PEANUT BUTTER LOW	$ 13,265	$ 10,918	$ 12,838	$ 11,788	$ 12,502	$ 12,294	$ 11,670	$ 11,515	$ 11,022	$ 11,879
4	SNICKERS MARATHON CHEWY CHOCOLATE PENT	$ 11,293	$ 11,451	$ 11,074	$ 11,241	$ 11,168	$ 11,116	$ 10,348	$ 10,896	$ 11,224	$ 11,101
5	SNICKERS MARATHON CHOCOLATE NUT BURST F	$ 7,041	$ 9,616	$ 8,593	$ 11,141	$ 12,387	$ 10,311	$ 11,612	$ 12,029	$ 12,234	$ 10,652
6	PURE PROTEIN CHOC PEANUT BUTTER HIGH PRO	$ 6,300	$ 9,844	$ 13,879	$ 9,985	$ 17,488	$ 12,505	$ 8,443	$ 7,522	$ 7,688	$ 10,404
7	POWER BAR PRIA CARB SELECT PNTBTR CARAME	$ 8,329	$ 10,045	$ 10,172	$ 10,080	$ 8,962	$ 8,473	$ 7,813	$ 7,114	$ 7,295	$ 8,698
8	POWER BAR PROTEIN PLUS CARB SELECT CHOC	$ 8,748	$ 8,633	$ 9,343	$ 8,234	$ 9,012	$ 8,035	$ 7,368	$ 7,042	$ 6,627	$ 8,227
9	SLIM FAST OPTIMA CHOCOLATE COOKIE DGH MEA	$ 8,232	$ 8,157	$ 8,055	$ 7,789	$ 7,890	$ 8,499	$ 7,636	$ 7,248	$ 8,046	$ 7,950
10	SNICKERS MARATHON PEANUT BUTTER LOW CAR	$ 8,706	$ 8,070	$ 8,118	$ 7,691	$ 6,821	$ 7,385	$ 7,427	$ 7,630	$ 6,592	$ 7,382
11	NABISCO SNACKWELLS CARBWELL COOKIES & CR	$ 3,165	$ 3,647	$ 3,513	$ 8,114	$ 6,383	$ 6,810	$ 5,871	$ 5,948	$ 17,385	$ 6,737
12	SNICKERS MARATHON CHOC FUDGE BROWNIE LO	$ 6,526	$ 6,033	$ 5,716	$ 6,763	$ 6,204	$ 6,200	$ 6,081	$ 6,000	$ 6,296	$ 6,090
13	KRAFT SOUTH BEACH DIET CHOC PEANUT BUTTE	$ -	$ -	$ 1,851	$ 6,379	$ 9,445	$ 9,555	$ 9,648	$ 8,831	$ 8,504	$ 6,024
14	SLIM FAST CHOC PEANUT BUTTER LOW CARB ME	$ 5,825	$ 5,879	$ 5,913	$ 5,837	$ 6,116	$ 5,845	$ 6,394	$ 6,348	$ 5,749	$ 5,987
15	SLIM FAST OPTIMA MILK CHOC PEANUT MEAL REF	$ 3,273	$ 5,153	$ 5,321	$ 5,400	$ 6,352	$ 6,713	$ 7,091	$ 7,407	$ 6,680	$ 5,933
16	SLIM FAST PEANUT BUTTER CRUNCH LOW CARB	$ 6,311	$ 6,810	$ 6,431	$ 6,209	$ 6,255	$ 5,897	$ 6,037	$ 4,508	$ 4,480	$ 5,771
17	POWER BAR PROTEIN PLUS CARB SELECT DOUBL	$ 6,325	$ 5,818	$ 6,582	$ 6,384	$ 5,539	$ 4,511	$ 5,203	$ 6,665	$ 5,892	$ 5,746
18	KASHI GO LEAN CRNCHY CHCL CRML KRM PROTE	$ 4,649	$ 5,203	$ 5,683	$ 5,688	$ 6,007	$ 5,855	$ 5,704	$ 5,871	$ 6,343	$ 5,553
19	CLIF BUILDER'S PEANUT BUTTER PROTEIN 2.4OZ	$ 4,025	$ 5,095	$ 5,271	$ 5,304	$ 5,462	$ 5,364	$ 5,790	$ 6,075	$ 6,391	$ 5,420
20	SLIM FAST OPTIMA MILK CHOC PEANUT MEAL REF	$ 5,850	$ 5,997	$ 5,559	$ 5,180	$ 5,380	$ 5,560	$ 4,988	$ 4,862	$ 5,165	$ 5,391
[illegible]	HERSHEYS SMART ZONE PEANUT BUTTER & CHO	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
36	HERSHEYS SMART ZONE CHOCOLATE NUTRITION	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
57	HERSHEYS SMART ZONE STRAWBERRY NUTRITIC	$ 2,440	$ 3,098	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
102	HERSHEYS SMART ZONE CRUNCHY PEANUT BUTT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
119	HERSHEYS SMART ZONE CHOCOLATE BROWNIE	[illegible]	[illegible]	$ 602	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

APPENDIX C

E2280.003720.

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

EDWARD L. RAPP ET AL.

Application No.: 10/615,249

Filed: July 8, 2003

For: TASTING ENERGY BAR
(As Amended)

Examiner: H. Pratt

Group Art Unit: 1761

May 8, 2006

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

FIRST DECLARATION UNDER 37 C.F.R. §1.132

Sir:

I, Edward L. Rapp, declare and say that:

1. I am a Technology Vice President at Masterfoods USA and have been in this position since February of 2006. Prior to that, I have held the positions of Innovation Director (2005), Innovation Manager (2004), Senior Scientist (1999-2004), and Research Scientist (1996-1999).

2. I graduated from Purdue University in May of 1996, with a Bachelor of Science degree in Food Science.

3. I am the first named inventor on the above-identified United States Patent Application.

4. I have managed projects related to the development of energy bars from 1999-2004 and have been intimately involved in all developmental aspects of these

products. This includes working as part of a cross-functional team with marketing, manufacturing, purchasing, and research and development functions, and managing material science development aspects (manipulating formula and process to achieve desired product attributes, including scale-up to production process) for energy bars.

5. I have reviewed several of the Office Actions issued by the Patent Office and find that one point of disagreement appears to be the recognition that energy bars are a food category segment.

6. Energy bars were introduced to consumers during the late seventies to early eighties. Generally, small companies manufactured and marketed these products to specific consumer groups, creating a niche business. Gradually the popularity of energy bars grew and more and more consumers became interested in using these products as a source of nutrition. Food manufacturing companies recognized the growing consumer interest in this new food category segment and the business opportunity it presented. Masterfoods USA, as well as other food manufacturing companies began offering consumers more choices. The market started to expand when POWERBAR® was developed in the mid 1980's. In 1997, consumers spent an estimated $100 million dollars on energy bars. In 2004, an estimated $840 million dollars were spent. Clearly, consumers want energy bar products.

7. As I've indicated in paragraph 4 of my declaration, I have spent about 5 years working on developing energy bars at Masterfoods USA, and other individuals have also contributed much to this effort. This is a significant investment in time and resources to develop a product when compared to the typical requirements to develop a confectionery product.

8. An energy bar is designed to provide significant levels of nutrients such as protein and fortification components in a low fat and low calorie bar. The nutritional benefits found in these bars sets them apart from candy bars and/or granola bars, which are more familiar to consumers. Energy bars have, as defined in this application, about 15 to about 45 g of carbohydrates, about 1 to about 4.5 g of fortification components, about 8 to about 40 g of protein, about 3 to about 8 g of fat, about 150 to about 300 calories, and a moisture content of less than about 15% by weight, based on a 55 g serving size.

9. I am aware that the Examiner has rejected Claims 1-8, 10-13 and 18-22 under 35 U.S.C. § 103(a) as allegedly being obvious over U.S. Patent No. 4,055,669 ("Kelly et al.") in view of U.S. Patent No. 6,592,915 ("Froseth et al."). In addition, the Examiner has rejected Claims 23 and 24 under 35 U.S.C. § 103(a) as allegedly being obvious over U.S. Patent No. 3,615,590 ("Avera et al."). I am also aware that the Examiner has rejected Claims 14-17 under 35 U.S.C. § 102(b) as allegedly being anticipated by a publication by Rombauer et al. in the "Joy of Cooking" (p. 708).

10. I have reviewed Kelly et al. and have determined that the amount of fat in the food composition of Kelly et al. is above the limit set forth in the definition provided in paragraph 8. The food composition described in Kelly et al. has at least 11 g of fat. This is outside and well above, 25% above, the upper range of permissible fat, i.e., 8 g fat, permitted in the energy bar as defined in paragraph 8.

a. Kelly et al. discloses that a binder composition makes up 60-70% of the food composition (column 2, lines 56-58). The fat content of the binder composition ranges from a minimum of about 33% by weight to a maximum of about 85% by weight, and is preferably about 47% by weight

(column 3, lines 61-64). Using this information, the minimum amount of fat in the binder composition is determined by multiplying the (% binder) by the (% fat in the binder) by the (serving size). Based on a 55 g serving, the fat in the binder composition alone is 10.9 g of fat (55 g X (33% fat) X (60% binder)). In addition, there is also fat in the cereal components that make up the other 40% of the food composition. Low fat cereal components such as crisp rice or corn flakes have about 0.5% fat. For a 55 g serving basis, there would be about 0.1 g of fat (55 g X (0.5% fat) X (40% cereal)) in the cereal portion.

11. I have also reviewed Froseth et al. and found that it describes a cereal bar. However, it does not describe a cereal bar having about 1 to about 5 g of fortification components as required by the definition of an energy bar in this application. In fact, it contains 44% less fortification than the required level.

a. Froseth discloses an embodiment where the amount of tricalcium phosphate (TCP), i.e., mineral, in the binder is 3% on a weight basis (column 15, lines 17-25), and that the binder makes up 40% of the cereal bar (column 11, lines 15-16). In a 55 g serving, the amount of TCP in the cereal bar is determined to be 0.66 g of TCP (55 g X (40% binder) X (3% TCP in binder)). Therefore, Froseth et al. does not describe a cereal bar which has fortification components within the range of about 1 to about 4.5 grams, as defined in paragraph 8.

12. In addition, I have reviewed Rombauer et al. and found that it does not have the required protein and fortification component levels specified in paragraph 8. I have determined that the protein content in the Pfeffernusse composition is approximately

4.6 g. This is over 40% below the minimum of 8 g of protein set forth in the energy bar definition. In addition, the Pfeffernusse composition does not include fortification components, which are also an important part of the energy bar.

13. The following table lists the ingredients used to make the Pfeffernusse composition and was used to determine the total amount of protein.

PFEFFERNUSSE

Ingredient		Grams of Protein (based on 55 g serving)
Flour	2.01 cups	3.21
Baking Powder	0.75 tsp	
Baking Soda	0.13 tsp	
Salt	0.25 tsp	
Black Pepper	0.25 tsp	0.01
Nutmeg	0.25 tsp	0.01
Cinnamon	1 tsp	0.01
Fennel Seed	1 tsp	0.05
Butter	0.5 cups	0.03
Sugar	0.33 cup	
Egg	1	0.47
Chopped Almonds	0.25 cup	0.82
Chopped Citron	1 tbsp	
Orange Peel	0.25 cup	
Molasses	0.33 cup	
Corn Syrup	1 tbsp	
Brandy	0.33 cup	
Lemon Rind	1 tsp	
Lemon Juice	1 tbsp	
TOTAL		4.61

14. While the food products of Kelley et al., Froseth et al. and Rombauer et al. may or may not taste good, they do not meet the criteria set forth in paragraph 8 that defines an energy bar. Therefore these products are not relevant to a discussion of energy bars. Based on that definition, the food products disclosed in Kelley et al., Froseth et al. and Rombauer et al. are not energy bars.

15. Simply adding the missing fortification and/or protein to the food products described, in my opinion, would not result in a product that would taste good or

meet our hedonic score. Designing a good tasting energy food product within the defined ranges stated in paragraph 8 is extremely difficult. Other maker's of energy bar products within the range constraints in paragraph 8 have not been able to make a good tasting product that matches the mean hedonic scores recited in Claim 1 (mean hedonic score of 5.2) or Claim 7 (chewy bar, mean hedonic score of 4.9). This can be seen by the hedonic scores of POWERBAR® (4.78) or LUNA® (5.06) which are shown in the comparative examples in the application. These were the best tasting top products in an energy bar market that has existed for over 20 years.

16. Froseth et al. has 44% less fortification components than required. Fortification components generally have an extremely bad taste. For example, Vitamin B is known to have a medicinal and metallic flavor, and is somewhat smelly. Calcium, a mineral, is known to be rather chalky. Simply adding these to the product would cause a significant detriment to the taste of the product.

17. The Pfeffernusse composition of Rombauer et al. is likely to be a good tasting product precisely because it is outside the permissible nutritional requirements of an energy bar. As noted in paragraph 12, the Pfeffernusse composition has only 4.6 g of protein and no fortification components. If the Pfeffernusse composition were modified to comply with the energy bar definition of paragraph 8, the protein content would have to increase by 74% and 1 g of fortification components would have to be added. In addition to the discussion on the fortification ingredients above, the protein powders also have a significantly detrimental effect on the taste of food products. Protein powders create a highly undesirable mouth drying sensation, and the protein powders commonly used in energy bars often have a green and beanie flavor. The additional protein required for the

Pfeffernusse composition to achieve the levels needed for an energy bar alone would severely negatively impact the product's taste.

18. Typically, the negative taste of the protein and fortification ingredients in food products is balanced by higher levels of fat and carbohydrates. The higher amounts of fat can be used to mask or cover up the negative taste. However, this is not possible within the restrictive compositional limits for energy bars.

19. While small changes or deviations from the specified ranges may seem of little or no consequence when looked at in terms of weight, e.g., 0.5 g versus 0.3 g. Those changes, however, are quite significant in terms of percentage. For example, the above represents a 66% decrease in the one component. When you're dealing with a bad tasting component, this will have a great impact on taste.

20. However, using one or more of the inventive processing techniques described in the present invention will improve the taste of an energy bar product. The improved taste has been confirmed through sensory testing where energy bars made in accordance to the invention and within the compositional limits set forth for energy bars were tested against leading energy bars on the market. Energy bars of the invention consistently had a higher hedonic score than leading energy bars on the market.

21. I declare further that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Subscribed this 8 day of May, 2006.

Edward L. Rapp

NY_MAIN 555715v1

APPENDIX D

02280.003720.

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

EDWARD L. RAPP ET AL.

Application No.: 10/615,249

Filed: July 8, 2003

For: TASTING ENERGY BAR
(As Amended)

Examiner: H. Pratt

Group Art Unit: 1761

May 8, 2006

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

SECOND DECLARATION UNDER 37 C.F.R. §1.132

Sir:

I, Edward L. Rapp, declare and say that:

1. I am a Technology Vice President at Masterfoods USA and have been in this position since February of 2006. Prior to that, I have held the positions of Innovation Director (2005), Innovation Manager (2004), Senior Scientist (1999-2004), and Research Scientist (1996-1999).

2. I graduated from Purdue University in May of 1996, with a Bachelor of Science degree in Food Science.

3. I am the first named inventor on the above-identified United States Patent Application.

4. I have managed projects related to the development of energy bars from 1999-2004 and have been intimately involved in all developmental aspects of these

products. This includes working as part of a cross-functional team with marketing, manufacturing, purchasing, and research and development functions, and managing material science development aspects (manipulating formula and process to achieve desired product attributes, including scale-up to production process) for energy bars.

5. I am aware that the Examiner has rejected Claims 1-8, 10-13 and 18-22 under 35 U.S.C. § 103(a) as allegedly being obvious over U.S. Patent No. 4,055,669 ("Kelly et al.") in view of U.S. Patent No. 6,592,915 ("Froseth et al."). In addition, the Examiner has rejected Claims 23 and 24 under 35 U.S.C. § 103(a) as allegedly being obvious over U.S. Patent No. 3,615,590 ("Avera et al."). I am also aware that the Examiner has rejected Claims 14-17 under 35 U.S.C. § 102(b) as allegedly being anticipated by a publication by Rombauer et al. in the "Joy of Cooking" (p. 708).

6. Energy bars are food products that are designed to provide significant levels of nutrients such as protein and carbohydrates in a low fat and low calorie bar. The nutritional benefits found in these bars sets them apart from the more familiar candy and/or granola bars. Energy bars, in this application, have about 15 to about 45 g of carbohydrates, about 1 to about 4.5 g of fortification components, about 8 to about 40 g of protein, about 3 to about 8 g of fat, about 150 to about 300 calories, and a moisture content of less than about 15% by weight, based on a 55 g serving size. Food product compositions that fall outside these ranges are not recognized as energy food products, e.g., energy bars, by consumers and food companies.

7. At first, manufacturers of energy bars primarily sought to provide nutritional benefits in a convenient portable product. However, the energy bars first developed and sold to consumers simply did not taste good. This reinforced the consumers' belief that nutritional foods taste bad.

8. Many food companies have expended much effort over the last two decades on improving the taste of energy bars with very limited success. Improving taste while maintaining nutritional value has proven to be a difficult goal to achieve, especially working within the ranges specified in paragraph 6. Even today, the majority of energy bars that are currently marketed still do not satisfy many consumers' taste expectations.

9. Typically, consumers complain that energy bars are too dry, chewy, chalky, sandy, crumbly, etc. Some simply describe them as "disgusting." Many consumers just avoid the product altogether, while others who do buy energy bars have come to accept a bad tasting product, believing that taste has to be sacrificed for nutrition. Clearly, most consumers have not been satisfied with the choices available in the energy bar category.

10. The present invention as described in U.S. Patent Application Ser. No. 10/615,249 provides an energy bar that delivers nutrients within defined carbohydrate, fortification component, protein, fat, calorie and moisture ranges, which actually tastes good as demonstrated by a hedonic score for consumer acceptability of at least 5.2.

11. The commercial embodiment of the present invention has successfully met consumers' expectations by delivering an energy bar that tastes good and provides nutritional value consistent with the energy bar category. This has been achieved by carefully combining ingredients in a manner and in amounts as taught in the present invention that produces an exceptionally good tasting energy bar, which has superior taste, texture, and appearance.

12. Consumers appear to agree. Two energy bars were initially introduced into the energy bar market in 2003, SNICKERS MARATHON® Multi-Grain Crunch and SNICKERS MARATHON® Chewy Chocolate Peanut. These were later

followed by SNICKERS MARATHON® Caramel Nut Rush, SNICKERS MARATHON® Chocolate Nut Burst, SNICKERS MARATHON® Peanut Butter Low Carb and SNICKERS MARATHON® Chocolate Fudge Brownie Low Carb energy bars.

13. As of September 4, 2005, SNICKERS MARATHON® Multi-Grain Crunch is the #1 selling energy bar, followed by SNICKERS MARATHON® Caramel Nut Rush at #2. SNICKERS MARATHON® Chewy Chocolate Peanut is at #4 and SNICKERS MARATHON® Chocolate Nut Burst is at #5. Two recently introduced energy bars, SNICKERS MARATHON® Peanut Butter Low Carb is at #10 and SNICKERS MARATHON® Chocolate Fudge Brownie Low Carb is at #12. This ranking is based on the sales velocity, which measures how quickly a product moves off the shelf. Each of these bars exceeded expectations. In less than 2 years, SNICKERS MARATHON® has taken over the 1st, 2nd, 4th and 5th positions as the fastest selling energy bars in the market. This achievement is very significant when you consider that recognized and established brands such as POWERBAR® have been around since 1988.

14. The successful result is not simply due to marketing. While $25.3 million were initially spent during the introduction of SNICKERS MARATHON® Energy Bars in 2004, the success and popularity of these products have continued to grow. In 2005, only $4 million in advertising dollars were spent on SNICKERS MARATHON® bars. In comparison, in 2005, POWERBAR® Brand Energy Bars, the leading brand and perhaps the most recognized brand of energy bars which has been around for 21 years, spent about $15 million in advertising dollars (almost four times as much as SNICKERS MARATHON® bars), yet SNICKERS MARATHON® bars still outsold each of the POWERBAR® bars. Consumers have voted with their pocketbooks and have rewarded

the new offerings from SNICKERS MARATHON® in the energy bar category by making them the most popular energy bars in that category.

15. Further evidence of success is based on SNICKERS MARATHON® having received dozens of awards, including over 6 major awards since 2003. For example, SNICKERS MARATHON® Energy Bar Double Chocolate Nut, the newest introduction, has been named the "Best Bar" in Health® magazine's "Best of Fitness Awards 2006." See Exhibit A. Another example is the honorable mention of SNICKERS MARATHON® Energy Bars from Prepared Foods® magazine "Spirit of Innovation Awards: Retail." The winner of the award was a packaging design rather than a food product design.

16. Clearly, SNICKERS MARATHON® Energy Bars are commercially successful products. That success is the result of superior tasting products, manufactured using one or more of the processing techniques disclosed in the above-identified application.

17. During an interview conducted with the Examiner on October 6, 2005, an example of how the processing techniques and methods of the invention are used to improve an energy bar product was presented. At the interview, we presented the Examiner with two samples of binder syrup. The ingredients used to make the binder syrup were as follows:

Ingredient	grams
63 DE Corn Syrup	151.21 g
High Fructose Corn Syrup	161.26 g
Glycerin	28.65 g
Peanut Butter	20.46 g
Fortification Blend	52.09 g

18. The first sample was made by mixing the ingredients at a temperature of about 100 °C, e.g., high temperature and high shear conditions.

19. The second sample (of the invention) was manufactured by mixing the ingredients in a temperature range of 50-65 °C, at low temperature and low shear conditions. These conditions are within the ranges specified in claim 1.

20. The appearance and smell of the first sample was very different from the appearance and smell of the second sample. The first sample was rather viscous, which is not a desirable product attribute since highly viscous binder syrups are known to have a negative impact on taste and texture, making the final product tougher to chew. The viscosity of the second sample was much lower and more suitable for use in an energy bar. This was a particularly surprising result at the time of the invention. Additionally, the first sample had an unpleasant vitamin smell, and the binder syrup appeared to be a greenish tinted color. In contrast, the second sample (of the invention) had a neutral smell and was a golden yellow color.

21. As discussed in the application, another technique for improving the taste of an energy bar is to include the inventive fat-carbohydrate matrix blended into the base energy bar matrix. The taste improvement is apparent when you compare Examples 1 and 2 in the specification. In Example 1, a chewy based energy bar made under the inventive low temperature and low shear conditions received a mean hedonic score of 5.2. In Example 2, the inventive low temperature and low shear conditions were also used, but a fat carbohydrate matrix was added to the chewy based energy bar mixture. The mean hedonic score for the chewy energy bar of Example 2 was 5.64. This is a 0.44 point increase in the mean hedonic score, which is significant. And importantly, this taste

improvement and increase in the mean hedonic score was achieved while adhering to the ranges specified in paragraph 6, which define an energy bar.

22. The taste of an energy bar may also be improved by using protein powders that have a particle size distribution where at least about 30 weight percent of the protein powder has a mean particle size of at least about 35 microns. The taste benefits are shown in Example 5 of the specification, where energy bars were made using soy protein isolates of varying mean particle diameters. Sample A was prepared by mixing 12.1 wt.% of a soy protein isolate, where about 50 to 60 wt.% of the soy protein isolate had a mean particle diameter of about 16 microns, into an energy bar product. Sample B was prepared using the same procedure as Sample A, except that the soy protein isolate of sample B had a mean particle diameter of about 33 microns (about 50 to 60 wt.% of the soy protein isolate). Sample C was prepared using the same procedure as Sample A, except that the soy protein isolate of sample C had a mean particle diameter of about 54 microns (about 50 to 60 wt.% of the soy protein isolate). It should be noted that the protein content for all soy protein isolate samples was 90% protein.

23. Samples A, B, and C were evaluated by a sensory panel. The participants rated samples A, B, and C for mouth drying sensation based on a scale from 0 to 15. 0 being the best and 15 the worst. A score of 5 was considered ideal. The samples were scored by the participants as follows:

Sample	Score
Sample A (16 microns)	13.5
Sample B (33 microns)	10.0
Sample C (54 microns)	8.5

24. The mouth drying sensation of protein powders has a severely detrimental impact on the overall taste of an energy bar, particularly at the very high levels required to meet nutritional limitations. The results clearly show that as the mean particle size of the protein powder increases, the mouth drying sensation decreases, thus improving the overall product taste.

25. I disagree with the Examiner's statement that the agglomerated particles in Kelley is relevant. Kelley describes fat occluded particles of protein, which are milled to the appropriate size. This size is specific to the particle in its entirety but not the protein particle. These particles would be much smaller than the total agglomerate.

26. These are significant discoveries. With this understanding and knowledge, we have designed better tasting energy bars for consumers.

27. I declare further that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Subscribed this 8 day of May, 2006.

Edward L. Rapp

Edward L. Rapp

NY_MAIN555829v1

X. Related Proceedings Appendix

None